



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,623	10/14/2003	Julian B. Melendrez	ZIGP102US	2622
24041	7590	08/11/2006	EXAMINER	
SIMPSON & SIMPSON, PLLC 5555 MAIN STREET WILLIAMSVILLE, NY 14221-5406			MCMAHON, MARGUERITE J	
			ART UNIT	PAPER NUMBER
			3747	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/605,623		MELENDREZ, JULIAN B.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Marguerite J. McMahon		3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: Claim 1 has inadvertently been amended to recite a "fuel cell conditioning device" when it should read --fuel conditioning device--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melendrez (5,271,369) in view of Ettehadieh (5,063,368). Melendrez shows everything except utilizing a ferrous metal plate(s) disposed on an upper side of the magnet(s), wherein the magnet(s) and the metal plate(s) are of approximate size and shape such that substantial registration exists between the upper surface of the magnet and a planar surface of the metal plate. Ettehadieh teaches that it is old in the art to provide a ferrous metal plate 216 (see Figures 6 and 8, and column 1, lines 27-32, which cites the use in Figure 6 of a steel plate and column 2, lines 16-44, which describes the second embodiment shown in Figure 8) on the top surface of a pair of magnets 14.

It would have been obvious to one of ordinary skill in the art to modify Melendrez by providing a ferrous metal plate on the top surface of the magnet(s), in order to focus the direction of the magnetic field toward the fuel line and away from the engine, thus improving the efficiency of the magnets in magnetizing the fuel. In addition, it would have been obvious to provide a second metal plate to cover the top of the second magnet assembly. According to MPEP 2144.04 VI (B), it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. It would have been obvious to one of ordinary skill at the time the invention was made to provide a second metal plate, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

With respect to claim 17, it would have been prima facie obvious to substitute the north pole for the south pole as the pole adjacent the fuel line, since they are art recognized alternatives known for the same purpose, as evidenced by the various claims in the instant application citing the use of the south pole located adjacent the fuel line.

### ***Response to Arguments***

Applicant's arguments filed 5/22/06 have been fully considered but they are not persuasive. Applicant argues that Ettehadieh does not show a ferrous metal plate on the upper side of a magnet. As pointed out in the above rejection, Ettehadieh does show a ferrous metal plate 16, 216 placed on the upper side of a magnet. Ettehadieh cites that in the prior art, shown in Figure 6, it was known to use a steel plate in an attempt to draw the magnetic field adjacent the engine toward the plate, in order to

concentrate the magnetic field toward the fuel and away from the engine. Ettehadieh shows two embodiments, a first one in which an aluminum plate, which is non-magnetic is utilized, and a second one in which a magnetic plate (shown in Figure 8) is employed. "Ferrous" means that iron is included in the composition of the item in question, so a ferrous plate means that the plate is comprised at least partially of iron. Iron is a magnetic material. In fact, it is the one element which is the most magnetic element of all the elements, the other two magnetic elements being cobalt and nickel. Steel is composed primarily of iron with small amounts of carbon, so steel is a ferrous metal, which is magnetic.

Given this context, Applicant's arguments are a little confusing because he is claiming that the ferrous metal plate shown in the instant invention is non-magnetic, and he explains its ability to function in the manner that he claims it does based on the erroneous assumption that the ferrous metal plate is non-magnetic.

Applicant also discusses, at page 9, second full paragraph the differences in configuration between the Ettehadieh reference and the instant invention. Since Ettehadieh was only relied upon to teach the ferrous metal plate, this argument is not relevant.

Next, Applicant attacks the viability of the Ettehadieh reference claiming that the magnets are configured such that like polarities are in direct contact with each other. This is not true, as shown by Figure 6-8 and column 3, lines 48-52, which cite that the "magnets 14 are arranged within the housing 12 in a stacked configuration of two adjacent columns, with two magnets in each column and the south poles of each

magnet facing the bottom side wall 24 of housing 12 and fuel line 28 and the north poles facing towards the top wall 22 of the housing, as seen in FIG.7.”

***Conclusion***

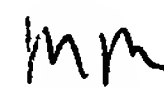
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 571-272-4848. The examiner can normally be reached on Monday-Wednesday and Friday, 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin can be reached on 571-272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**MARGUERITE MCMAHON**  
**PRIMARY EXAMINER**